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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,715	09/29/2003	Charles C. Havener	1213	2455

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UT-Battelle, LLC  
Office of Intellectual Property  
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Oak Ridge, TN 37831

EXAMINER

TERESINSKI, JOHN

ART UNIT PAPER NUMBER

2858

DATE MAILED: 04/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/673,715

Applicant(s)

HAVENER ET AL.

Examiner

John Teresinski

Art Unit

2858

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/29/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 4,878,014 to Simpson in view of U.S. Patent No. 5,224,137 to Plomgren et al..

Regarding claim 1, Simpson discloses an energetic particle beam profile scanner having a probe (60) constructed of a material that emits electrons when struck by the particle beam (10), a detection means for detecting the electrons emitted from the probe (62), and drive means for passing the probe through the particle beam at first and second positions along the particle beam axis (column 2 lines 55-60). Simpson does not disclose two mutually perpendicular scans of the particle beam, or a second probe providing two additional mutually perpendicular scans of the particle beam, such that two mutually perpendicular beam scans are obtained at said first position along the particle beam axis, and two mutually perpendicular beam scans are obtained at said second position along the particle beam axis.

Plomgren et al. discloses an energetic particle beam profile scanner having a probe (Fig. 3 element 52) constructed of a material that emits electrons/energy when struck by the particle beam (24), a detection means for detecting the electrons/energy emitted from the probe (column 3 lines 59-67, column 4 lines 1-2) wherein the probe provides two mutually perpendicular scans of the particle beam (column 6 lines 60-68, column 7 lines 1-11), a second probe (Fig. 3 and 4

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elements 52), detection means capable of detecting the electrons/energy emitted from said second probe (Fig. 1 element 32), second probe providing two additional mutually perpendicular scans of the particle beam, such that two mutually perpendicular beam scans are obtained at said first position along the particle beam axis, and two mutually perpendicular beam scans are obtained at a second position along the particle beam axis (column 6 lines 60-68, column 7 lines 1-11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a second probe and two mutually perpendicular scans as taught by Plomgren et al. into Simpson for the purpose of a quick and automatic measurement system (column 1 lines 53-56).

Regarding claim 2, Simpson discloses the device as described above but fails to teach the probe and the second probe mounted spaced apart. Plomgren et al. disclose the probe and the second probe mounted spaced apart (Fig. 3 elements 52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the first and second probe spaced apart as taught by Plomgren et al. in to Simpson for the purpose of providing higher quality measurements by full range scanning of the beam.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Teresinski whose telephone number is (571) 272-2235. The examiner can normally be reached on M-F 8:30 - 5:00.

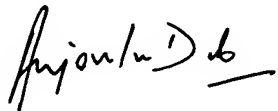
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JT  
JT

April 14, 2005



**ANJAN DEB**  
**PRIMARY EXAMINER**